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<p align="center"><b>Division of Forensic Science</b></p> <p align="center"><b>TOXICOLOGY TRAINING MANUAL</b></p>	<p align="center">Amendment No.:</p>
	<p align="center">Effective Date: 26-March-2004</p>
<p align="center"><b>1 INTRODUCTION</b></p> <p><b>1.1 Purpose and Scope</b></p> <p>1.1.1 The purpose of this manual is to define the training program for forensic lab specialists, forensic scientists and toxicologists working in the toxicology section as employees of the Commonwealth of Virginia Division of Forensic Science. This work is intended to be used in a formal training program that will establish a certain minimum standard of professional competency throughout the toxicology section statewide.</p> <p>1.1.2 The manual is organized in modules and each module outlines the objectives, time expected to complete training in a specific topic, methods of instruction, modes of evaluation and review questions.</p> <p>1.1.3 The training program covers theory and methodology of instrumentation, analytical techniques, interpretation of analytical results, report writing and handling of evidence.</p> <p>1.1.4 The training program provides exposure to court room testimony and legal aspects throughout the training and assists in developing the skills necessary to be an effective expert witness.</p> <p>1.1.5 The program evaluates the progress and performance of the trainee at appropriate intervals. Evaluation is conducted as described in each individual module.</p> <p>1.1.6 The sequence in which the modules are presented should not necessarily be considered as a mandatory order of instruction.</p> <p>1.1.7 The program culminates in both a technical oral examination and a mock trial.</p> <p>1.1.8 Forensic laboratory specialist III's are expected to complete the laboratory training exercises only. It is recognized some of the forensic laboratory specialists may only perform certain analyses. Therefore, they are only required to complete the laboratory exercises for the types of work they perform, not necessarily laboratory exercises throughout the entire training manual (e.g. FLS III who performs FPIA screening must complete laboratory exercises in Section 5-Immunoassay).</p> <p>1.1.9 Forensic laboratory specialist VI's and forensic scientists are expected to complete Sections 1-11 however FLS VI's will only undergo a brief oral technical examination.</p> <p>1.1.10 Forensic toxicologists are expected to complete Sections 1-12.</p> <p>1.1.11 Any member of the toxicology section who performs examinations of alcoholic beverages will be required to complete Section 13 (Alcoholic Beverage Analysis). Since alcoholic beverage analyses are only conducted in the Central Laboratory by select personnel, most Trainees will not complete this section.</p> <p><b>1.2 Coordination of the Program</b></p> <p>1.2.1 The training coordinator is usually the supervisor (toxicologist) in each laboratory.</p> <p>1.2.2 The coordinator will be responsible for the overall training, but may delegate certain duties and blocks of instruction to other individuals.</p> <p><b>1.3 Training Period</b></p> <p>1.3.1 The length of the training period is a highly variable matter and will be left to the determination of the Section Chief. Certain individuals may require less time than others, depending on experience, education or learning ability. However, the training period is usually completed within 12 months.</p>	

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<p><b>1.4 Location of Training</b></p> <p>1.4.1 Whenever practical, the bulk of an individual's training will occur in the laboratory to which they will be assigned. Toxicologists are typically trained in the Central Toxicology Laboratory unless there is another toxicologist present in the regional lab to provide training.</p> <p><b>1.5 Training Goals</b></p> <p>1.5.1 The training should culminate such that the trainee has the following:</p> <p>1.5.1.1 The knowledge of analytical chemistry.</p> <p>1.5.1.2 The knowledge of the principles and practices of forensic toxicology related to the analysis of drugs and poisons within biological samples.</p> <p>1.5.1.3 The knowledge of the theory and application of a variety of instruments used for the identification and quantitation of drugs.</p> <p>1.5.1.4 The ability to perform accurate forensic toxicology analyses independently and proficiently.</p> <p>1.5.1.5 The ability to skillfully present and defend analytical findings in courts of law.</p> <p><b>1.6 Instructions to the trainee</b></p> <p>1.6.1 The trainee is expected to document all their training activity and to provide a weekly progress report to the training coordinator.</p> <p>1.6.2 The trainee will assist with casework throughout the training period, only under the direct supervision of a qualified examiner and only once the trainee has demonstrated their competency to perform particular analyses.</p> <p><b>1.7 Instructions to training coordinators</b></p> <p>1.7.1 As previously stated, the intent of the training manual is to define a program that will ensure each and every trainee receives certain basic principles and fundamentals necessary to the complete education of lab specialists, forensic scientists or toxicologists within the toxicology section. All of the listed topics must be incorporated into the program for forensic scientists and toxicologists. However, it is recognized that some of the forensic laboratory specialists may only perform certain analyses. Therefore, they are only required to complete the laboratory exercises for the types of work they perform, not necessarily laboratory exercises throughout the entire training manual.</p> <p>1.7.2 The training coordinator is responsible for maintaining the Division's training program documentation during the training period. Each section of the training log must be dated and initialed upon completion of the specified task. If any task is not completed, for any reason, this must be explained in the training file and approved by the Section Chief.</p> <p>1.7.3 Once the trainee has satisfactorily completed all of the requirements of the program, the Section Chief shall forward a written recommendation for certification to the Division Director.</p> <p>1.7.4 If the trainee cannot meet the criteria expected of them during the training period, steps must be taken to effect appropriate action.</p> <p><b>1.8 Mock Trials</b></p>	

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1.8.1	The training coordinator is responsible for ensuring that the trainee is thoroughly prepared for legal questioning. This can be done by a combination of mock trials, prearranged as well as impromptu question and answer sessions, and observation of courtroom testimony given by experienced examiners.	
1.8.2	The scheduling of practice mock trials is to be done by the training coordinator. These are to be conducted throughout the training period.	
<b>1.9</b>	<b>Guidelines for Technical Examination, Practical Test and Final Moot Court</b>	
1.9.1	Technical Examination	
1.9.1.1	Prior to the final mock trial, a technical oral examination of the trainee will be conducted to ascertain the technical knowledge of the individual. This will be limited to 3 hours.	
1.9.1.2	After the examination, supervision/management will discuss the trainee's performance.	
1.9.1.3	The outcome of the examination will be satisfactory or not satisfactory.	
1.9.1.3.1	If the panel determines that the trainee's performance was not satisfactory, steps must be taken to effect the appropriate action.	
1.9.2	Practical examination	
1.9.2.1	Following successful completion of all training modules, the trainee will be given a practical test to work as though it were a real case.	
1.9.2.2	The practical test will be a typical medical examiner case involving at least 3 analytical procedures (e.g. alcohol screen, immunoassay screen and confirmation/quantitation).	
1.9.2.3	The trainee will generate an associated case file and Certificate of Analysis for the practical test.	
1.9.3	Moot court	
1.9.3.1	A taped final moot court will be conducted regarding the analysis of the practical test.	
1.9.3.2	The Section Chief must agree with the selection of all participants.	
1.9.3.3	The atmosphere will be formal, that is, it will be conducted in the same manner as a real courtroom situation. This includes dress, conduct, protocol and all other aspects. Answers and explanations are to be directed as to a lay jury or judge.	
1.9.3.4	The moot court will not exceed 3 hours.	
1.9.3.5	The role of the prosecutor will be assumed by the training coordinator or designee.	
1.9.3.6	The moot court may be stopped at any time upon request of any of the involved parties.	
1.9.3.7	After the court, supervision/management will assess the trainee's performance.	
1.9.3.8	The outcome of the moot court will be satisfactory or not satisfactory.	
1.9.3.8.1	If the panel determines that the trainee's performance was not satisfactory, steps must be taken to effect the appropriate action.	
1.9.3.9	This evaluation will be immediately followed by a short performance critique.	

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<p>1.9.3.10 The training coordinator will review the video tape of the trial with the trainee as soon as possible. Other participants/observers should provide comments to the training coordinator as soon as possible.</p> <p><b>1.10 Transition from trainee to examiner</b></p> <p>1.10.1 After the new examiner has successfully completed this training, there follows a period of adjustment. The job of the coordinator is to ensure that this transition from training to real life takes place as smoothly as possible.</p> <p>1.10.2 Casework will be introduced stepwise under the close supervision of a senior examiner.</p> <p>1.10.3 The supervisor, training coordinator or designee will accompany and monitor the newly qualified examiner to court for the first few cases. ♦ <b>End</b></p>	